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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/698,882	10/27/2000	eric Morgan Dowling	EDM-FED.001A	5947

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ERIC M. DOWLING
INTERLINK 731
POST OFFICE BOX 02-5635
MIAMI, FL 33102-5635

EXAMINER

MASTRACCI, DARYL R

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/698,882

Applicant(s)

DOWLING, ERIC MORGAN

Examiner

Daryl Mastracci

Art Unit

2155

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

In response to Application Number 09/698,882 filed October 27, 2000, claims 1-20 are pending in this Office Action.

Information Disclosure Statement

The information disclosure statement filed in Paper No. 2 has been considered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 6 and 7 recite the limitations "first physical layer" and "second physical layer." There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 4, and 5-8 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent No. 5,796,728 issued to Rondeau et al. ("Rondeau").

With respect to claim 1, Rondeau teaches a wireless terminal apparatus comprising: a transport layer software module that communicates with a corresponding peer transport layer communication module in a remote network server (col. 3, lines 26-35); a transceiver coupled to support the transmission of one or more transport layer communication packets with said network server via a first air interface (Fig. 1; col. 2, lines 58-62); a software radio configuration module coupled to said transceiver (Fig. 1, 2B, 3A; col. 5, lines 13-33); whereby (i) said terminal apparatus is operative to perform a data transaction with said remote network server to identify to said server a geographical location associated with said apparatus (Fig. 1, 2A, 3A; col. 3, lines 10-25; col. 4, lines 47-54), to obtain at least one software module via said transceiver and to pass said at least one software module to said software radio configuration module (Fig. 1, 2B, 3A; col. 5, lines 13-33); (ii) said software radio configuration module is operative to use said at least one software module to load at least a portion of one air interface protocol layer to instantiate a second air interface (Fig. 1, 2B, 3A; col. 3, lines 53-55; col. 4, lines 24-31; col. 5, lines 13-33, 59-66); and (iii) said transceiver is operative to support the transmission of one or more transport layer communication packets with

said remote server using said second air interface (Fig. 1, 2B, 3A; col. 3, lines 53-55; col. 4, lines 24-34; col. 5, lines 13-33, 59-66).

With respect to claim 4, Rondeau teaches the apparatus according to Claim 1 wherein said transceiver comprises a fixed portion for implementing said first air interface and a software radio portion for implementing said second air interface (Fig. 1, 2B, 3A; col. 3, lines 53-55; col. 4, lines 24-34; col. 5, lines 13-33, 59-66).

With respect to claim 5, Rondeau teaches the apparatus according to Claim 1 wherein said first and second air interfaces correspond to at least a first and second physical layers, and at least said second physical layer is implemented using a software radio architecture (Fig. 1, 2B, 3A; col. 3, lines 26-35, 53-55; col. 4, lines 24-34; col. 5, lines 13-33, 59-66).

With respect to claim 6, Rondeau teaches the apparatus according to Claim 4, wherein first physical layer corresponds to an open-road transceiver physical layer and said second physical layer corresponds to a toll-tag physical layer (Fig. 1, 2B, 3A; col. 3, lines 53-55; col. 5, lines 13-33, 59-66).

With respect to claim 7, Rondeau teaches the apparatus according to Claim 1, and also a mobile device and communication system designed to operate in both a conventional RF environment and a landline environment (Fig. 1, 2B, 3A; col. 3, lines 53-55; col. 4, lines 24-35; col. 5, lines 13-33, 59-66). The remote over-the-air programming of Rondeau incorporates multiple networks utilizing multiple protocols and/or carrier frequencies, and therefore inherently teaches said first physical layer

corresponds to a wireless macrocellular network physical layer and said second physical layer corresponds to a local-area wireless access physical layer.

With respect to claim 8, Rondeau teaches the possibility of a GPS-based Automatic Vehicle Locator attached to the mobile unit (col. 4, lines 47-54), which is equated with (i) said GPS processor uses a set of GPS signals received via said GPS receiver to compute a representation of a geographical location; (ii) said transceiver transmits said representation to said remote server; and (iii) said software module defines a geographically-determined air interface protocol. A GPS unit performs the following functionalities, and is therefore taught by Rondeau.

Claims 10, 13-15, 19, and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by US Patent No. 6,236,652 B1 issued to Preston et al. ("Preston").

With respect to claim 10, Preston teaches a dynamic location-based addressing scheme that allows a mobile unit to operate on multiple protocols (col. 5, lines 1-24). Therefore, with respect to the limitation a method of processing in a network server, comprising the steps of: receiving from a remote client a representation of a geographical location, said representation being transmitted at least partially via a transport layer over a first air interface protocol, Preston teaches sending a location-based unresolved dynamic IP address to the server to negotiate a resolved network connection with that server (Fig. 4, 7; col. 2, lines 37-45; col. 5, lines 19-29, 34-43; col. 8, line 60- col. 9, line 11), which is equated with the aforementioned limitation.

With respect to the limitation sending to said remote client an indication of a second air interface protocol and a set of parameters for use in accessing a wireless network access point using said second air interface protocol, Preston teaches the server accepting the dynamic IP address or negotiating another IP address for the mobile unit (Fig. 4, 7; col. 7, lines 24-34, 49-54; col. 8, line 60- col. 9, line 11), which provides the same functionalities of the limitation.

Preston teaches sending to said wireless network access point an indication of said remote client and a code requesting said wireless network access point to provide wireless access to said remote client [negotiation] (Fig. 7; col. 8, line 60- col. 9, line 11).

With respect to claim 13, Preston teaches the method of Claim 10, and also communicating with a server based on geographical location, which is equated with selecting said wireless access point based on an optimization criterion, said optimization criterion that is a function of at least one user preference (col. 6, lines 8-17; col. 7, lines 12-18, 61- col. 8, line 6).

Claim 19 is the same as claim 13, and is rejected on the same basis.

With respect to claim 14, Preston teaches the method of Claim 10, and also communicating with a server based on geographical location, which is equated with selecting said wireless access point from a pool of federated wireless access points supplied by registered associates, whereby said selection is based at least in part on said representation and an optimization criterion that is a function of at least one user preference (col. 6, lines 8-17; col. 7, lines 12-18, 61- col. 8, line 6).

With respect to claim 15, Preston teaches the method of Claim 10, whereby said act of receiving is performed using a management session defined at the transport layer or above, the method further comprising: communicating at least one more transport layer packet via said management session to said client, said management session routing at least partially through wireless network access point (col. 2, lines 15-19, 37-49; col. 5, lines 41-43; col. 6, lines 8-17).

With respect to claim 20, Preston teaches the method of Claim 10, including data communications between mobile computing devices and servers, and negotiating with the servers (Fig. 7, col. 5, lines 1-24; col. 8, line 60- col. 9, line 11). All communications in wired and wireless networks, and combinations thereof, comprises some form of payment for usage. Users of mobile devices requesting information from a server must negotiate with that server and pay for the usage, and the payment is then distributed accordingly to the service providers. Therefore, the following limitation is inherent: maintaining a first financial record used for billing said client; and maintaining a second financial used for compensating the associate associated with said selected wireless network access point.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rondeau in view of US Patent No. 6,470,447 B1 issued to Lambert et al. ("Lambert").

With respect to claim 2, Rondeau teaches the apparatus according to Claim 1, but does not explicitly state wherein said software module is defined to execute over a Java virtual machine. Lambert teaches a method for enabling modification of the operation of a mobile device based on location, wherein the software components installed on the device run in the Java virtual machine environment (col. 5, line 51- col. 6, line 11). It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the Java virtual machine run software components of Lambert into Rondeau. One of ordinary skill would utilize a Java virtual machine so that the operation of the software module is platform-independent. This is beneficial in the programming of mobile devices utilizing different operating systems (Rondeau, col. 1, lines 57-64).

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rondeau in view of US Patent No. 6,643,684 B1 issued to Malkin et al. ("Malkin").

With respect to claim 3, Rondeau teaches the apparatus according to Claim 1, but does not explicitly state wherein said software module is defined as a resource in a resource description language, and said apparatus loads only submodules needed to build said resource. Malkin teaches a method that enables a sender to specify a set of delivery policies, such as receiving device capabilities (col. 2, lines 31-43), including indicating the policies using the Resource Description Framework (col. 3, lines 17-34).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the RDF based messages of Malkin into Rondeau. One of ordinary skill in the art would do this in order to specify what resources the recipient has, and transmitting the meta-information accordingly. This is beneficial in the transmission of electronic content to devices utilizing different operating systems and capabilities (Rondeau, col. 1, lines 57-64, col. 6, lines 3-22).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rondeau.

With respect to claim 9, Rondeau teaches the apparatus according to Claim 1, and the possibility of a GPS-based Automatic Vehicle Locator attached to the mobile unit (col. 4, lines 47-54). Although Rondeau does not explicitly state a local positioning system (LPS) receiver and a LPS processor, it would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate an LPS into Rondeau. One of ordinary skill in the art would do this in order to provide another option for a locating system in the mobile device besides a GPS unit. GPS provides the same functionalities of an LPS, but on a more global scale (Rondeau, col. 4, lines 47-54).

Claims 11 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Preston in view of US Patent No. 6,470,447 B1 issued to Lambert et al. ("Lambert").

With respect to claim 11, Preston teaches the method of Claim 10, but does not explicitly state wherein said set of parameters comprises a software module defined to

execute over a Java virtual machine, said software module defining at least a portion of a software layer of said second air interface. Lambert teaches a method for enabling modification of the operation of a mobile device based on location, wherein the software components installed on the device run in the Java virtual machine environment (col. 5, line 51- col. 6, line 11). It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the Java virtual machine run software components of Lambert into Rondeau. One of ordinary skill would utilize a Java virtual machine so that the operation of the software module is platform-independent. This is beneficial in the programming/configuration of mobile devices utilizing different operating systems (Preston, col. 5, lines 10-15).

Claim 17 is the same as claim 11, and is rejected on the same basis.

Claims 12 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Preston in view of Lambert in further view of US Patent No. 6,643,684 B1 issued to Malkin et al. ("Malkin").

With respect to claim 12, Preston in view of Lambert teaches the method of Claim 11, but does not explicitly state wherein said software module is defined as a resource in a resource description language, and said server transmits only submodules needed to build said resource. Malkin teaches a method that enables a sender to specify a set of delivery policies, such as receiving device capabilities (col. 2, lines 31-43), including indicating the policies using the Resource Description Framework (col. 3, lines 17-34). It would have been obvious to a person of ordinary skill in the art at the

time of the invention to incorporate the RDF based messages of Malkin into Preston. One of ordinary skill in the art would do this in order to specify what resources the recipient has, and transmitting the meta-information accordingly. This is beneficial in the transmission of electronic content to devices utilizing different operating systems and capabilities (Preston, col. 5, lines 10-15).

Claim 18 is the same as claim 12, and is rejected on the same basis.

Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Preston in view of US Patent No. 6,029,141 issued to Bezos et al. ("Bezos").

With respect to claim 16, Preston teaches the following limitations:

With respect to the limitation receiving from a remote client a representation of a geographical location, said representation being transmitted using a first air interface protocol via a first wireless to network access point, Preston teaches sending a location-based unresolved dynamic IP address to the server to negotiate a resolved network connection with that server (Fig. 4, 7; col. 2, lines 37-45; col. 5, lines 19-29, 34-43; col. 8, line 60- col. 9, line 11), which is equated with the aforementioned limitation.

With respect to the limitation sending to said remote client an indication of a second air interface protocol and a set of parameters for use in accessing a selected one of said wireless network access points using said second air interface protocol, Preston teaches the server accepting the dynamic IP address or negotiating another IP address for the mobile unit (Fig. 4, 7; col. 7, lines 24-34, 49-54; col. 8, line 60- col. 9, line 11), which provides the same functionalities of the limitation.

Preston teaches sending to said selected wireless network access point an indication of said remote client and a code requesting said selected wireless network access point to provide wireless access to said remote client [negotiation] (Fig. 7; col. 8, line 60- col. 9, line 11).

However, Preston does not explicitly state enrolling a plurality of associates using an on-line registration system, whereby each said associate indicates an air interface protocol used by a wireless access point system supplied by said associate. Bezos teaches a method for business entities to enroll as associates through an on-line registration on a merchant's web site, allowing the associates to sell products and receive commission, from the merchant, for their services (col. 1, line 50- col. 2, line 18). It would have been obvious to a person of ordinary skill in the art at the time of the invention to incorporate the registration of associates of Bezos into Preston. One of ordinary skill in the art would do this in order to account for the plurality of wireless service providers in cellular and wireless networks that operate on different protocols and standards in different regions of the world. This is beneficial in electronic commerce, and more particularly in maintaining a network of multiple wireless service providers operating on different protocols (Preston, col. 3, lines 41-49; col. 4, line 54- col. 5, line 4).

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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US Patent No. 5,846,764 issued to Thro et al.

US Patent No. 6,115,754 issued to Landgren

US Patent No. 6,154,212 issued to Eick et al.

US Patent No. 6,230,012 B1 issued to Willkie et al.

US Patent No. 6,327,533 B1 issued to Chou

US Patent No. 6,549,625 B1 issued to Rautila et al.

US Patent No. 6,563,919 B1 issued to Aravamudhan et al.

Contact Information

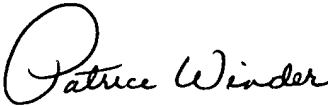
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daryl Mastracci whose telephone number is (703) 305-0325. The examiner can normally be reached on Monday-Friday (8-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on (703) 308-6662. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.



DRM
November 12, 2003



PATRICE WINDER
PRIMARY EXAMINER